Amendments

Improving Awareness & Advocacy of the Michigan Biosolids Program

Volume 9, First Quarter April, 2008

2008 Biosolids Conference Re-cap

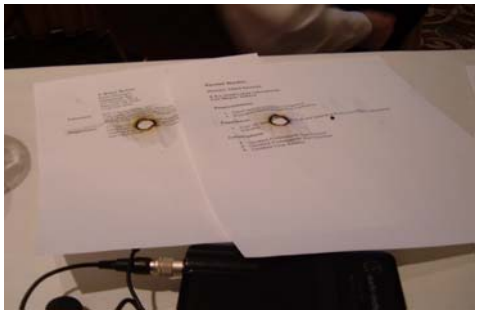
The Michigan Biosolids Team (MBT), through the MWEA, held it annual tour and conference February 20 and 21, 2008 at the DoubleTree Hotel in Bay City Michigan with the theme: Managing your metals, Maximizing your micros. Overall the conference was well attended and the facility was a top notch conference facilitator. The tours, which followed Dr. Lee Jacob's Biosolids Workshop, included the West Bay County and Bay City WWTPs and the Michigan Sugar Plant. The Michigan Sugar Plant tour was lauded by many of the participants.

The tours concluded with a visit to the Lumber Barons Microbrewery to learn from their brewmaster about brewing the different ales.

The Planning committee would like to thank Mr. Robert Bream of Michigan Sugar, Mr. Ken Schott of West Bay County WWTP, Nick Ingallina of the City of Bay City WWTP, and Marty Rapnicki of Lumbar Barons for putting on good tours.

The evening reception and meals were in the vendor area. There were 17 vendors present. The evening entertainment featured the "King of Karma" Mike Ridley who entertained the group after the evening dinner with his famous parities. The committee would like to thank the following vendors and sponsors: A & L Great Lakes Laboratories, Big Fish Environemtnal, Tetra Tech, C2AE, Environmental Sales, Merrell Bros., Biotech Agronomics, KAR Laboratories, Waterworks Systems, Synagro, Rowe, Hesco, Malcolm Pirnie, Solberg Knowles and Associates, Pumps Plus, Inc., Balck & Veatch, ChemTreat, Inc., and Hamlett Environmental Technologies.

The morning session of Thursday, February 21, featured Mr. Rick Stevens of USEPA going over Round II of 40 CFR Part 503, and Dr. Lee Jacobs recapping his 34 years of Biosolids as a MSU faculty member. Not to forget the Passing of the crown as Dr. Jacobs crowned Jim Johnson, State Biosolids Coordinator the new Baron of Biosolids to. Also, who could forget Steve Mahoney's near flaming folder which burned holes in the bio's.



The afternoon breakout sessions, one on micronutrients and the other metals, has excellent speakers in academia and wastewater treatment professionals presenting their experiences.

The committee would like to thank our lineup of speakers:
Charles Brunner, Mayor of Bay City
Dr. Lee Jacobs, Michigan State University
Sharon Paterson, N.A. Water Systems
Kari Saganski and Ben Stuart, Synagro
Kevin Chandler, Biotech Agronomics
Rick Stevens, US EPA
Grace Scott, MDEQ
Jeff Dietlin, City of Cadillac
Bruce Bowen, Chemtreat
Nate Turner, South Huron Valley
Randy Warden, A & L Labs

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Dr. Robert Mullen, the Ohio State University
Steve Toft, Synagro
Glenn Hummell, Hesco

I would like to personally thank members of the conference planning committee:
Kim Hackbardt
Ben Stuart
Jim Johnson
Scott Kafka
Keith Sanders
Kevin Chandler
Mike Person

The seminar planning committee has already begun planning the 2009 conference. Location and theme will be available later this year.

Program Alerts

The Michigan Biosolids program is projected to be $23,000 in the hole at the end of this fiscal year as compared to a $100,000 surplus at the end of last fiscal year. A Michigan Department of Environmental Quality (MDEQ) Water Bureau (WB) Administration Section stated the Biosolids fund is getting hit with the full 25% charge for the MDEQ Executive Office this year which will amount to over $200,000 out of the Biosolids budget. So with a budget of around $600,000 left in the Biosolids program, minus $80,000 to the Michigan Department of Agriculture (MDA), the Biosolids Program is left with around $520,000 to work with, which is less than the 1998 levels. Essentially, there will still be vacancy in the Southeast Michigan District, MDEQ will not be funding any Ag Expo plot activities, and MDEQ Water Bureau may have to cut district staff involvement in Biosolids activities and shift some of their duties over to non-biosolids work in order to balance the program budget at the end of this fiscal year.

It is believed the MDEQ Executive Office is hiring new staff.

On March 6, 2008, the Associated Press printed a misleading story suggesting that a recent Augusta, Georgia court case regarding sick cattle and milk contamination was related to biosolids. The story has been reprinted by a few Michigan newspapers, and it is possible that it also may be reported by your local news source.

The two farmers in this case have brought numerous lawsuits against the City of Augusta, EPA, the University of Georgia, and individual researchers at those institutions, seeking large sums of money and arguing that respected researchers committed fraud, and that biosolids somehow killed cattle and contaminated land. The lawsuits have been unsuccessful. In the case in the article, the judge found that USDA did not have enough evidence before it to reject a loss of crop claim by the farmers. The ruling was not related to biosolids.

It should be noted that the land application in question took place between 1979 and 1990, three years before the implementation of the Part 503 rule. The AP story makes it appear that the contamination occurred recently and that this issue is indicative of the nationwide biosolids program, which it clearly is not.

Exactly what happened in the Georgia case is difficult to determine due to the many years that have passed. However, there are expert judgments by the EPA and state agency that were at the scene which state that there is no evidence that biosolids caused the deaths of the cows. Unfortunately, unclear analytical data by the City of Augusta and “shabby” record keeping have left them defenseless to these claims. The circumstances of this case do point out the need for good regulation, testing and record-keeping.

Should this story get picked up by your local media, it is likely that questions from concerned citizens will be directed to the Waste Water Treatment Plants. This is also a great opportunity to for you to present your biosolids story and build support from your local community. You may choose to invite the media to your plant for a tour, or to write an op-ed piece or letter to the editor. Your best defense to these negative stories is not to comment on the untruths in the article, but rather to reassure your community about the safety and success of your program. In addition to info on your facility, you can include these important facts:

- In 2007, 186 Michigan facilities safely recycled their biosolids to agricultural or reclamation land without incident.
- The national regulations, referred to as the Part 503 Rule, are based on more than four decades of experience land applying biosolids and intensive research by the USEPA, USDA, and major universities like MSU.
- No human or animal illnesses related to land application of biosolids in Michigan have ever been documented.

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- Recycling biosolids is accepted by the Michigan Department of Environmental Quality, the Michigan Department of Agriculture, Michigan State University, the Michigan Municipal League, and the Michigan Farm Bureau as an environmentally friendly method of recycling.
- Alternatives to land application, such as landfilling and incineration, have environmental impacts and are considered to be less environmentally acceptable.
- Land application of biosolids improves soil fertility, contributes to recycling efforts, minimizes human stress on the environment, reduces the amount of waste that enters landfills and reduces our dependence on petroleum based chemical.

Michigan News

DEQ explains sewage spills

By DIANA HENDERSON
Staff Writer

GRATTAN - Recent sewer spills in two Grattan Township lakes brought nearly 20 township residents to a Michigan Department of Environmental Quality (DEQ) public forum Tuesday afternoon at the township hall.

Michael Worm, assistant district supervisor with the DEQ, and Kurt Overmyer, supervising sanitarian with the Kent County Health Department, were present to explain the situation and answer citizens' questions.

According to Marc Middlestadt, operations specialist with Sierra Consultants in Kent City, the company that manages the Grattan sewer system, 90,000 gallons of treated waste spilled into Big Pine Island Lake beginning Jan. 15 and was discovered almost two weeks later.

A second spill in the township occurred in Big Crooked Lake between Jan. 30 and Feb. 7 when 49,000 gallons of sewage leaked into the lake.

Worm said that even though the winter may be the best of circumstances it's still a concern.

"Do we as the bureau say it's acceptable, it's OK?" he asked. "Absolutely not. We want no raw sewage in the water system. That's why we exist."

Worm said that even though it's a concern and he wants to make sure it doesn't happen again, he's sure that because of the size of the lake as well as the cold weather the bacteria has dissipated and is not a danger to the public.

"Would you let your kids swim in June on the shoreline where it happened?" Tom Manikowski, president of the Big Pine Island Lake Association, asked Worm.

"Yes," Worm said. "At that point in June I'd be more worried about the kids swallowing the water and getting E. coli from the geese or ducks swimming there the day before."

Middlestadt said Sierra Consultants is working to replace malfunctioning and worn-out parts in the sewer system so a sewer leakage doesn't happen again.

"You're finding out now that the system is old," Township Supervisor Frank Force said. "It's had some improvements, not the whole system obviously, so we've got to take steps to improve it some more."

He said the issue of finances and how the township will afford upgrades to the sewer system will be discussed at the next township budget meeting Feb. 21.

N-Viro International Corporation Announces Agreement with Michigan State University to Explore the Development of the Patented N-Viro Fuel(TM) Technology at the T.B. Simon Power Facility

Tuesday March 4, 8:47 am ET

TOLEDO, Ohio, March 4 /PRNewswire-FirstCall/ -- N-Viro International Corp. (OTC Bulletin Board: NVIC - News; "N-Viro") is an environmental and materials handling company that owns patented technologies for the treatment of various waste streams including biosolids and manures. Included in these technologies is the patented renewable bio-fuel technology known as N-Viro Fuel(TM). Michigan State University and N-Viro conducted a full scale test of the N-Viro Fuel(TM) process and product at the T.B. Simon Power Plant located on the campus of Michigan State University in East Lansing, Michigan, in January of 2007. This successful test separately utilized both biosolids and animal manure-based N-Viro Fuel(TM) to demonstrate the potential of this technology to beneficially reuse these materials by creating a renewable alternative fuel.

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N-Viro and Michigan State University have entered into a term sheet to conduct further engineering and analysis to facilitate a long-term arrangement for the design, build and operation of an N-Viro Fuel(TM) facility adjacent to the T.B. Simon Power Plant. Using the proprietary N-Viro Fuel(TM) process would provide a renewable supplemental fuel source -- which is cleaner burning than coal -- for use in the T.B. Simon Power Plant.

The term sheet provides the basic framework for N-Viro and Michigan State University to reach final agreement within the next six months. The final agreement is subject to the satisfaction of various conditions, including the negotiation and execution of final, binding agreement. Following the execution of a final definitive agreement, it is contemplated that construction of the N-Viro Fuel(TM) facility would commence in early or mid- 2009.

Biosolids plan on solid ground as they work toward final phase

Posted by Tim Disselkoen
February 25, 2008 12:47PM

It began with an effort to turn poop into profit, but high cost estimates forced the Grand Valley Regional Biosolids Authority to pursue another avenue to dispose of its waste.
Both Grand Rapids and Wyoming comprise the authority. They had sought to turn the solid waste remnants of the sewage treatment process into fertilizer pellets that could then be sold to gardeners, like Milwaukee does with its Milorganite.

"We are facing the same challenges as Grand Rapids. This allows us to pool our resources and face them together." Tom Kent, Grand Valley Regional Biosolids Authority Wyoming Plant Superintendent

But Wyoming Plant Superintendent Tom Kent said the cost estimates were staggering. It would cost $570 per dry ton to turn the biosolids into pellets, compared to the $255 per dry ton they currently pay to apply the waste on farm fields.

"It just didn't make any sense to do that," Kent said.

But what they are doing now, joining forces to prepare for future regulations on biosolids disposal, with give both Grand Rapids and Wyoming considerable flexibility to meet future demands.

The $32.6 million project is entering the fourth and final phase of construction and should be operational by the fourth quarter of 2009, Kent said. Wyoming is paying for a third of the cost, based upon its biosolid contribution over the prior 12 months.

The first three phases built two storage tanks at the Grand Rapids Wastewater Treatment Plant, added a new pump station at the Wyoming plant, and installed transfer pipelines linking the two sites.

The final phase will result in a dewatering facility at the Grand Rapids plant. This leaves the authority with two options. They can landfill the biosolids--as Grand Rapids has done--or can land-apply the waste to farm field as Wyoming has done.

It also provides the flexibility to adapt for composting, palletizing, and other future means of disposing of the solid waste.
"Biosolids is the biggest challenge we have," Kent said of the treatment process. "We are facing the same challenges as Grand Rapids. This allows us to pool our resources and face them together."

The biosolids authority came about as Wyoming was facing greater and greater costs to land-apply its waste. Grand Rapids officials were concerned the state may move to ban the biosolids from landfills. So they jointly began this project specifically to provide themselves with flexibility to quickly adapt to changing regulations and to hopefully save money through their partnership.

Wyoming was paying $200 per dry ton to land-apply biosolids in 2005. Rising gas prices, and difficulty finding land within a reasonable distance from the city has pushed that price to $255 this year. Once operational, this new facility will raise that number to $275 per dry ton while at the same time expanding options that should equal future cost savings.

Elsewhere

Auburn agronomist defends bio-solids

Published: Thursday, April 3, 2008 6:17 PM CDT
Jason Cannon

Much has been said and much more written about the use of biosolids on local farmland but Jim Hairston shrugs it off.

Hairston, the Alabama Cooperative Extension System's water coordinator and Auburn University professor of

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agronomy, said recent fears escalated by media reports that U.S. drinking water contains minute traces of pharmaceuticals, such as antibiotics, sex hormones and anti-anxiety drugs are nothing to be concerned about.

"The sorts of people the media should be talking to are the scientists and others who understand scientific research, how it's conducted and how it relates to chemicals," Hairston says.

He says the same holds true for environmentalists and similar individuals who sow fears without ever bothering to consult the people who best understand the threats associated with these pharmaceutical residues - again, scientists.

Tim Reed, an Extension Specialist based in Franklin County agreed.

"The first thing I do when I look at a report based on research is to look at who funded it," he said. "I want to see if I can trust it as unbiased fact finding and you can usually tell that by looking at who funded it."

At the center of this debate is the use of biosolids - processed and treated human waste - as a fertilizer in farmland.

"What I'm asking is that the public keep an open mind," Reed said. "These farmers are hard pressed and this is something that can help them. It's something most of them want."

Reed said the use of biosolids is EPA approved and much research was done on cost versus benefit before it became a viable option. What has many locals concerned is reports that site "trace amounts" or "minute amounts" of contaminants have surfaced in drinking water.

"What is a trace amount," Reed asked. "Just because you can detect something doesn't mean it's unsafe. What were the levels? Were they at, above or below accepted standards? That information isn't in these reports."

Reed said contaminants in water can be detected in parts per million, parts per billion, parts per trillion and parts per quadrillion.

As an example, one part per quadrillion is the equivalent of one drop of water dropped in a cube the size of the Empire State Building.

As Hairston describes it, chemical exposure is something that every human being on this planet simply can't avoid.

"We live a world of chemicals," he says. "We're exposed to them everywhere, breathing them, drinking them, and even wearing clothing that has been dyed with them."

Even so, Hairston says this hasn't stopped some people from depicting trace elements of these chemicals in drinking water as a major environmental menace. He says years of scientific research have shown that minute traces of most of these chemicals pose no threat to humans.

"They conveniently fail to mention the dose-response relationship and that those trace elements are showing up well below the levels considered unsafe," Hairston says.

Reed said he's placed his faith in the hands of the experts who say the use of biosolids will cause no harm to the environment.

"I trust the scientists," he said. "It's their reputation that's on the line. They're the ones whose job it is to say what's okay and what's not. They have to run these tests. (Biosolids) have passed all the state and federal tests.

It's been checked out with the scientists. I'll trust in science."

Calendar of Events

MBT Meetings

Thursday, April 17, 2008 10:00 a.m.
Location: SCCMUA CWF, Dewitt Michigan

Thursday, June 19, 2008 10:00 a.m.
Location: SCCMUA CWF, Dewitt Michigan

Other Events

Tuesday, April 22, 2008 9:00 a.m. - 3:00 p.m.
Location: Constitution Hall, Lansing Michigan
Event: Earth Day

July 15 - 17, 2008
Location: MSU (Ag Expo Grounds), Lansing, MI
Event: Ag Expo

Questions? Contact Steve Mahoney at (517) 241-2508 or via e-mail mahoneys@michigan.gov